



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,985	01/02/2002	Armin Meisner	112740-395	9322
29177	7590	02/18/2005	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			SINGH, RAMNANDAN P	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,985

Applicant(s)

MEISNER, ARMIN

Examiner

Ramnandan Singh

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date January 02, 2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed on January 02, 2002.

Preliminary Amendment

2. The Preliminary amendment filed on January 02, 2002 is approved.

3. Status of Claims

Claims 1-8 are cancelled.

New claims 9-16 are added.

Claims 9-16 are pending.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Baldi [US 5,007,000].

Regarding claim 9, Baldi teaches a method for determining a tone ringing frequency shown in Fig. 3 [col. 5, line 54 to col. 7, line 19] , the method comprising the steps of:

forming a zero-crossing (i.e. ZC) signal from a tone ringing (i.e. **audio**) signal by comparing the tone signal (magnitude) with a threshold (i.e. **predetermined noise threshold**) [col. 15, lines 47-53], the two successive ZC signals inherently having a succession of alternately rising and falling edges between two ZC signal values (rising and falling edges are not shown);

measuring a respective time duration between adjacent rising and falling edges of the ZC signal (i.e. between two consecutive zero-crossings);

comparing the measured time duration with a predetermined time duration limit value [col. 13, line 1 to col.14, line 27];

defining an evaluation start time if the measured time duration is greater than or equal to the predetermined time duration limit value, the evaluation start time being an instant of a subsequent edge ;

defining an evaluation stop time if the measured time duration with an identical ZC signal value to a next-but-one instance is greater than or equal to the time duration limit value, the evaluation stop time being the instant of the subsequent edge [Figs. 7D-7F; col. 10, lines 30-42; col. 11, lines 44-68; col. 12, lines 45-56; col. 13, line 1 to col. 14, line 27]; and

determining the tone ringing frequency based on a measured time difference between the evaluation start time and the evaluation stop time [Figs. 1-6, 7A-7F; col. 3, line 16 to col. 4, line 43; col. 5, line 4 to col. 16, line 7].

Claim 13 is essentially similar to claim 9 and is rejected for the reasons stated above.

Regarding claim 10, Baldi further teaches the method comprising the steps of:

defining a monitoring time window for determining the tone ringing frequency;
and

discontinuing time measuring if a time measured since the evaluation start time lies outside the monitoring time window [Figs. 5-6; col. 3, lines 27-50; col. 4, lines 22-43; col. 5, lines 4-15; col. 8, line 56 to col. 9, line 53; col. 10, lines 43-57; col. 11, lines 10-43; col. 12, lines 36-44; col. 13, line 1 to col. 14, line 27; Abstract].

Claim 14 is essentially similar to claim 10 and is rejected for the reasons stated above.

Regarding claim 11, Baldi further teaches the method comprising the step of:

Art Unit: 2644

defining the predetermined time duration limit value as a constant (i.e. **predetermined time period**) [col. 10, lines 30-42; col. 15, lines 31-33; col. 3, lines 27-50].

Claim 15 is essentially similar to claim 11 and is rejected for the reasons stated above.

Regarding claim 12, Baldi further teaches the method comprising the steps of:

defining a value which is as great as possible as the predetermined time duration limit value, with which an attempt to define the evaluation start time is commenced; and
reducing the predetermined time duration limit value in accordance with a predetermined algorithm if the evaluation start time cannot be defined after a certain time [col. 10, lines 30-42; col. 11, lines 32-53; col. 12, lines 36-56; col. 15, line 28 to col. 16, line 7].

Claim 16 is essentially similar to claim 12 and is rejected for the reasons stated above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) Szlam et al [US 4,540,855] teach a method for detecting signals on a telephone line [Figs. 1-5B; Abstract; col. 7, lines 3-20];

(ii) Rexroth et al [US 4,739,759] disclose generating various pulses for monitoring a signal shown in Fig. 9 wherein the zero-crossing signal has been show with a rising and a falling wave [col. 10, lines 26-62; col. 13, line 60 to col. 14, line 25; col. 14, line 66 to col. 16, line 47; col. 21, lines 39-56; col. 22, line 61 to col. 23, line 24];

(iii) Comroe [US 4,414,675] teaches that a microcomputer 103 is interrupted by both rising anf falling edges of the hard limited data signal, which rising and falling edges correspond to **zero-crossings** (ZC) of the data signal from receiver 105 [Figs. 1-5; col. 4, lines 36-68; col. 7, lines 25-59; col. 11, line 33 to col. 12, line 42]; and

(iv) Roberts et al [US 4,868,872] teach a telephone tone detector [Figs. 1-2; col. 2, lines 25-46].

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (703)308-6270. The examiner can normally be reached on M-F(8:00-4:30).

Art Unit: 2644

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester Isen can be reached on (703)-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ramnandan Singh
Examiner
Art Unit 2644




XU MEI
PRIMARY EXAMINER